City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	Zheng - Zemel Residence
Proposal Address:	403 94th Ave SE
Proposal Description:	Critical Areas Land Use Permit for the modification of a steep slope critical area buffer to construct a new single-family residence and disturbance of a steep slope to construct a stairway and install sewer and storm utilities. The proposal will reduce a steep slope buffer from 50 feet to approximately 15 feet. Mitigation is proposed to remove invasive species within the steep slope and replant the slope and modified buffer with native vegetation and trees.
File Number:	19-123938-LO
Applicant:	Phillip Stuen
Decisions Included	Critical Areas Land Use Permit (Process II. 20.30P)
Planner:	Drew Folsom, Land Use Planner
State Environmental Policy Act Threshold Determination:	**Exempt Per WAC 197-11-800(1)**
Director's Decision:	**Approval with Conditions** Michael A. Brennan, Director Development Services Department By: Heidi M. Bedwell, Environmental Planning Manager for Elizabeth Stead, Land Use Director

Application Date:	September 11, 2019
Notice of Application Date:	November 7, 2019
Decision Publication Date:	April 9, 2020
Project Appeal Deadline:	April 23, 2020

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.

CONTENTS

Attachments

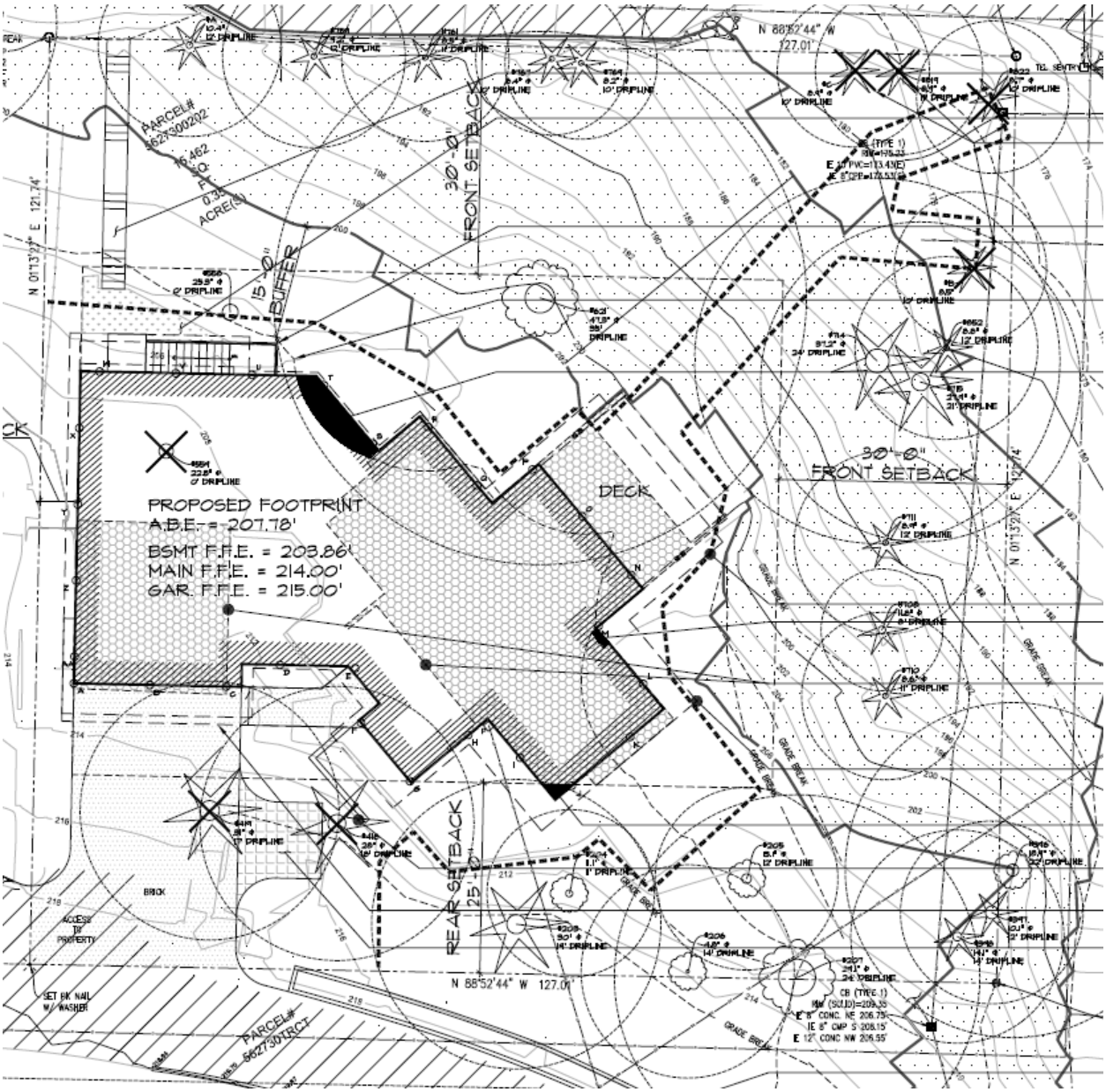
1. Mitigation Plan – Enclosed
2. Geotechnical Reports – Enclosed
3. Survey dated December 6, 2017 – Enclosed
4. Arborist Report – Enclosed

I. Proposal Description

The applicant proposes to demolish an existing single-family home and construct a new single-family home within a top of steep slope critical area buffer. The proposal includes a Critical Area Report with a request to modify a steep slope critical area buffer from 50 feet to approximately 15 feet. Elevated decks and an at-grade patio will be located closer than 15 feet from the top of slope (see figure 1 below). The patio and decks will be located predominantly within the footprint of the existing decks. A pervious stairway is proposed within the steep slope and buffer. The proposal will modify or disturb approximately 2,200 square feet of steep slope critical area buffer and 48 feet of steep slope. The modified area is mostly maintained lawn or existing impervious surface. No significant trees are proposed to be removed within the existing steep slope and buffer. A habitat snag will be removed within the buffer, and approximately four significant trees may be removed within the toe of slope critical area structure setback during the installation of utility infrastructure. As part of the mitigation plan, the applicant is proposing to remove invasive plants and plant 3,850 square feet of the steep slope and 2,500 square feet of the remaining buffer with native vegetation including four native trees.

Per LUC 20.25H.255 a Critical Areas Land Use Permit (CALUP) with a Critical Areas Report is required to modify steep slope critical area buffers. The Critical Areas Report is intended to provide flexibility to sites with degraded critical functions and values. The Critical Areas Report shall demonstrate the proposed with the requested modification leads to equivalent or better functions and values than what would result from the standard application of the Critical Areas Overlay requirements of the Land Use Code.

Figure 1 (Site Plan)

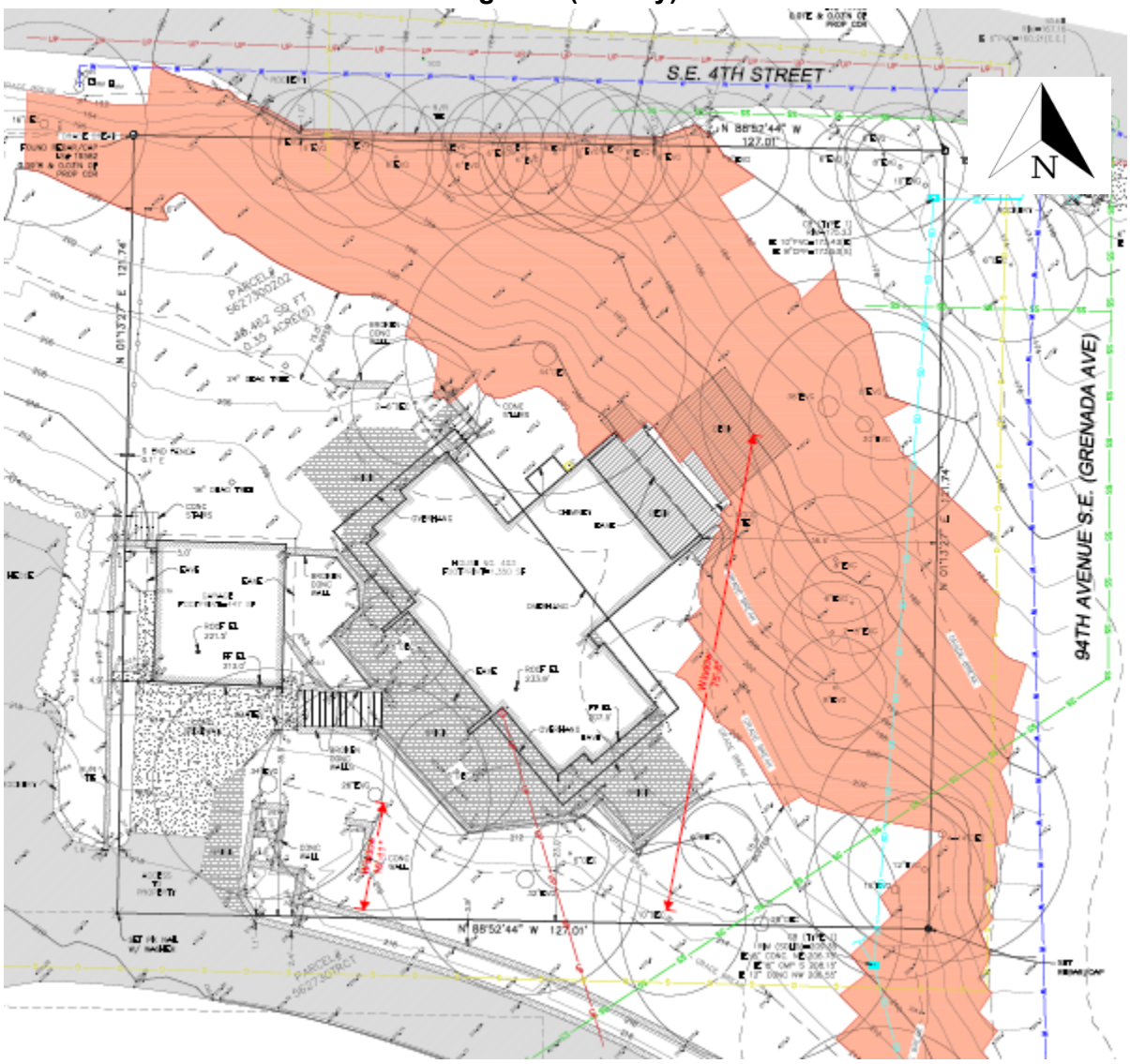


II. Site Description, Zoning, Land Use, and Critical Areas

A. Site Description

The project site is located in a community of single-family homes in the Southwest Bellevue Subarea of the City of Bellevue. The property is bounded on the east by 94th Ave SE an unimproved public right-of-way; and on the north by SE 5th Street. Single family homes are located to the west. The site is bounded on the south by a private tract with an access easement serving several properties. The site is approximately 15,464 square feet in size and is currently developed with a single-family residence. Access to the site is gained via 94th Ave SE and a joint driveway easement shared with the property located at 407 and 425 94th Ave SE (see figure 2 below).

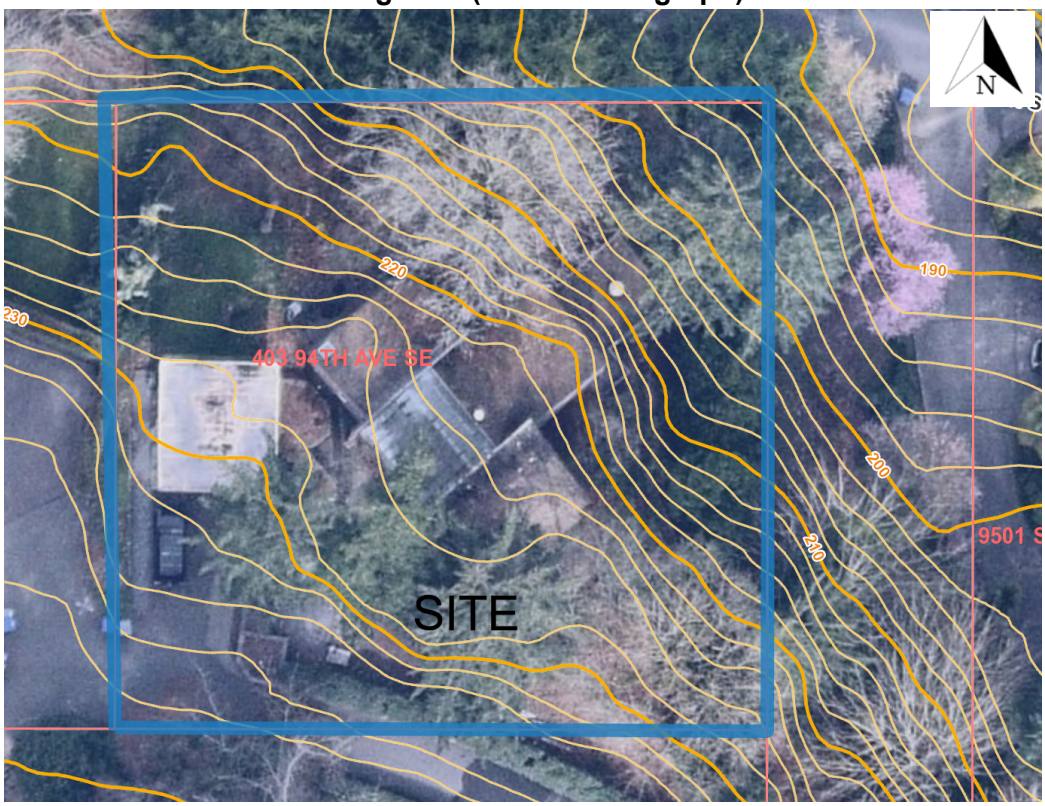
Figure 2 (Survey)



The topography of the site slopes moderately downward from southwest to northeast to the top of the steep slope. Within the north and east portions the property lays approximately

5,536 square feet of regulated steep slope per LUC 20.25H.120. Vegetation on the site includes scattered trees and shrubs including Douglas fir, big-leaf maple, hazelnut, snowberry, and a variety of ornamental plantings. The steep slope buffer is modestly sloped maintained lawn with grass or impervious patios. None of the significant trees within the existing steep slope or buffer will be removed as part of this proposal. Up to four 8-10" Leyland Cyprus and big-leaf maple trees within the toe of steep slope structure setback may be removed during installation of utilities. An aerial photograph of the site is included as figure 3 below.

Figure 3 (Aerial Photograph)



B. Zoning

The property and surrounding properties are zoned R-1.8, single-family residential. The proposed work is allowed in this zone.

C. Land Use Context

The property has a Comprehensive Plan Land Use Designation of SF-Low (Single-Family Low Density), and the subject site and surrounding properties are developed with single-family homes.

D. Critical Areas On-Site and Regulations

i. Geologic Hazard Areas

Geologic hazards pose a threat to the health and safety of citizens when commercial,

residential, or industrial development is inappropriately sited in areas of significant hazard. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided (WAC 365-190).

Steep slopes may serve several other functions and possess other values for the City and its residents. Several of Bellevue's remaining large blocks of forest are located in steep slope areas, providing habitat for a variety of wildlife species and important linkages between habitat areas in the City. These steep slope areas also act as conduits for groundwater, which drains from hillsides to provide a water source for the City's wetlands and stream systems. Vegetated steep slopes also provide a visual amenity in the City, providing a "green" backdrop for urbanized areas enhancing property values and buffering urban development.

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The R-1.8 zoning dimensional requirements found in LUC 20.20.010 and 20.25H.040 apply to the proposed home construction. Based on the preliminary plans and information submitted with this application the structural lot coverage will be approximately 35 percent of the lot (after critical areas are subtracted from lot size) and the impervious surface coverage will be approximately 26 percent. A small portion of the proposed home seeks to reduce the 25-foot rear setback to approximately 22 feet as allowed per LUC 20.25H.040. The intrusion is located within the footprint of the existing home to be demolished in an area exempt from steep slope critical area buffer status and will miniimize disturbance within the remaining critical area and buffers. The plans submitted generally demonstrate conformance with these and other zoning dimensional standards. However, conformance will be verified during building permit review. **See Building Permit Conditions of Approval in Section X of this report.**

B. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer, or structure setback from a critical area or buffer.

i. Consistency with LUC 20.25H.125

In addition to generally applicable performance standards set forth in LUC 20.25H.055 and 20.25H.065, development within a landslide hazard or steep slope critical area or the critical area buffers of such hazards shall incorporate the following additional performance standards in design of the development, as applicable. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function.

A. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;

B. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;

C. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;

D. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes would result in increased disturbance as compared to use of retaining wall;

E. Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer;

F. Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteria;

G. Building foundation walls shall be utilized as retaining walls rather than rockeries or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation;

H. On slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification;

I. On slopes in excess of 40 percent, piled deck support structures are required where technically feasible for parking or garages over fill-based construction types; and

J. Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.

Finding: The proposal is designed to minimize alterations to the steep slope critical areas, and buffers and the structure is tiered to conform to the slope. No retaining walls outside the proposed single-family building footprint are proposed as part of the project. As stated in the geotechnical reports prepared by Cobalt Geosciences dated August 14, 2019, and January 13, 2020: “There will be no net increase in risk to critical areas or adjacent properties.” The proposal complies with the recommendations of the geotechnical engineer based on the site slope stability conditions. The proposed

building is in the general area of the existing structure and is designed to minimize disturbance of vegetation. Modified or disturbed areas will be restored and enhanced by a mitigation plan which includes the removal of invasive species and planting of native vegetation on the steep slope and remaining buffer. **See Geotechnical and Mitigation Conditions of Approval in Section X of this report.**

ii. Consistency with Critical Areas Report 20.25H.140 and .145 Critical areas report – Approval of modification.

Finding: The application includes a copy of the site plans for the proposal and a topographic survey. Geotechnical reports were prepared Cobalt Geosciences dated August 14, 2019, and January 13, 2020. The reports include an analysis of the site's geological characteristics and the proposed project. As part of the reports, a Slope Stability Analysis demonstrated the project meets static and seismic factors of safety for global stability. The report also states "will not increase the threat of geological hazards (erosion and steep slopes on the property and adjacent properties" and "the proposal as designed is safe."

The proposal will permanently disturb slope buffer that is in a degraded condition due to existing lawn and landscape maintenance. No significant trees within the existing critical area steep slope and buffer will be removed by the proposal. A habitat snag within the steep slope buffer near the existing structure will be removed. Four significant trees may be removed within steep slope structure setback. The applicant submitted an arborist report prepared by Greenforest Inc., providing construction techniques and recommendations to preserve existing trees. The report concluded that tree removal can likely be avoided with these recommendations and the presence of an arborist during installation. If tree removal within the structure setback is required, up to eight trees will be required to be replanted within the general area as mitigation. These impacts are not environmentally significant and will be mitigated by the removal of invasive species and replanting of the steep slope, remaining buffer, and structure setback with native vegetation. **See Geotechnical, Arborist, and Mitigation Conditions of Approval in Section X of this report.**

IV. Public Notice and Comment

Application Date:	September 11, 2019
Public Notice (500 feet):	November 7, 2019
Minimum Comment Period:	November 21, 2019

The Notice of Application for this project was published the City of Bellevue Weekly Permit Bulletin on November 7, 2019. It was mailed to property owners within 500 feet of the project site. No comments were received from the public as of the writing of this staff report.

V. Summary of Technical Reviews

A. Clearing and Grading

The Clearing and Grading Division of the Development Services Department has reviewed the proposed site development for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff found no issues with the proposed development and has approved the application. The applicant will be required to apply for a single-family building permit which will need to include a letter from the geotechnical engineer stating they have reviewed the proposed permit. The permit must comply with Clearing and Grading best management practices and standards and codes. Geotechnical inspections will be required during clearing and grading and construction activities. **See Geotechnical, Erosion Contol, and Rainy Season Conditions of Approval in Section X of this report.**

B. Utilities

The Utilities Department has reviewed and approved the proposed site development for conceptual design. The applicant will be required to apply for a single-family addition building permit must comply with the Utility Surface Water Engineering Standards and codes. **See Building Permit Conditions of Approval in Section X of this report.**

VI. State Environmental Policy Act (SEPA)

The proposal is exempt from SEPA review, per WAC 197-11-800 and BCC 22.02.032. Construction of a single family residence is a categorical exemption, and no construction is proposed within critical areas.

VII. Changes to Proposal Due to Staff Review

Staff required the proposal to eliminate proposed retaining walls outside the building footprint and design decks and stairways within the steep slope and buffer with pervious surfaces.

VIII. Decision Criteria

A. 20.25H.255.B. Decision Criteria – Proposals to Reduce Regulated Critical Area Buffer.

The Director may approve, or approve with modifications, a proposal to reduce the regulated critical area buffer on a site where the applicant demonstrates:

1. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in overall critical area or critical area buffer functions;

Finding: The project proposes to reduce a steep slope buffer from 50 feet to approximately 15 feet to construct a single-family residence. The development activity will take place in an area where vegetation consists of a mowed lawn. The steep slope has moderate habitat function due to the presence of invasive species and isolation from other habitat patches as described in the Critical Areas Study - Habitat Assessment prepared by Altmann Oliver Associates, Inc. dated August 26, 2019. As a result of the proposed mitigation plan, the property will gain an increase in structural and biological diversity by removing invasive species and installing additional native

plants. These actions will increase the remaining habitat value and water quality functions. The project will result in an increase in ecological value to the property over what is existing. **See Mitigation Conditions of Approval in Section X of this report.**

2. **The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in the most important critical area or critical area buffer functions to the ecosystem in which they exist;**

   Finding: Functions in an urban ecosystem are commonly degraded due to vegetation removal and habitat fragmentation. With the proposed planting plan the water quality and habitat functions on this site will be improved. The proposal includes plans to restore approximately 3,850 square feet of the steep slope and 2,500 square feet of the remaining buffer by removing invasive species and replanting the area with native vegetation. **See Mitigation Conditions of Approval in Section X of this report.**

3. **The proposal includes a net gain in stormwater quality function by the critical area buffer or by elements of the development proposal outside of the reduced regulated critical area buffer;**

   Finding: Native vegetation and higher structural diversity all contribute to improving stormwater quality function in critical areas. Due to the degraded condition of the critical area buffer and the proposed planting of native vegetation on the steep slope and remaining buffer, the proposal will achieve a net gain in stormwater quality function. The project will be subject to the City's existing stormwater regulations.

4. **Adequate resources to ensure completion of any required restoration, mitigation and monitoring efforts;**

   Finding: Per LUC 20.40.490 a maintenance assurance device is required to ensure completion of the five-year monitoring period of the mitigation plan submitted in the critical areas report. **See Maintenance and Monitoring Conditions of Approval in Section X of this report.**

5. **The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site; and**

   Finding: As detailed in the geotechnical reports prepared by Cobalt Geosciences and the Critical Areas Study prepared by Altmann Oliver and Associates, Inc.; and, with the implementation of the mitigation plan, there will be no overall detrimental effect to the functions and values of the critical area or buffer. An increase in the value of the water quality, habitat, and functions of the steep slope and remaining buffer are expected outcomes of the proposed proposal.

6. **The resulting development is compatible with other uses and development in the same land use district.**

Finding: The proposal is requested to construct a single-family residence which is compatible with the adjacent single-family residences.

B. 20.30P.140 Critical Areas Land Use Permit Decision Criteria – Decision Criteria
The Director may approve, or approve with modifications an application for a Critical Areas Land Use Permit if:

1. **The proposal obtains all other permits required by the Land Use Code;**

   Finding: A single-family building permit must be applied for and approved to construct the proposed new single-family residence. **See Building Permit Conditions of Approval in Section X of this report.**

2. **The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;**

   Finding: The proposal is consistent with the required performance standards as discussed in Section III of this report. The proposed development activity has been limited to areas which are within a degraded steep slope buffer. The proposed mitigation will remove existing invasive plants and replant the steep slope and buffer with native vegetation. No significant trees within the steep slope or buffer will be removed.

   The review of this permit is reliant upon the findings of qualified professionals submitted by the applicant as part of this proposal. The property owner will be required to execute a Hold Harmless Agreement releasing the City from liability for any improvements within the critical area or critical area buffer. **See Hold Harmless and Mitigation Conditions of Approval in Section X of this report.**

3. **The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and;**

   Finding: As discussed in Section III of this report, the applicable performance standards are being met.

4. **The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;**

   Finding: The proposed development is adequately served by existing public facilities.

5. **The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and**

   Finding: A mitigation plan consistent with LUC 20.25H.210 has been prepared as part of this application. As part of the mitigation plan, the applicant is proposing to

remove invasive plants and plant the steep slope and the remaining buffer with native vegetation including four native trees (Attachment 1). The project is required to be monitored for five years. The monitoring, maintenance, and reporting schedule will be as proposed in the mitigation plan. **See Mitigation, Maintenance, and Monitoring Conditions of Approval in Section X of this report.**

6. **The proposal complies with other applicable requirements of this code.**

Finding: The applicant submitted documentation consistent with the requirement to demonstrate compliance with the requirements of LUC 20.30P, and 20.25H. Staff has reviewed these documents and finds that the proposal complies with all other applicable requirements of the Land Use Code. **See Building Permit Conditions of Approval in Section X of this report.**

IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, SEPA, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby approve with conditions the modification to reduce a steep slope buffer from 50 feet to approximately 15 feet and disturbance of steep slope to construct a new single-family residence, stairways, install utilities, and remove invasive species within the steep slope and replant the slope and remaining buffer with native vegetation and trees.

Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A building permit, clear and grade permit, and/or utility permit is required, and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.

Note- Expiration of Approval: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a Building Permit or other necessary development permits within one year of the effective date of the approval.

X. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Savina Uzunow, 425-452-7860
Land Use Code- BCC Title 20	Drew Folsom, 425-452-4441
Utilities Code- BCC Title 24	Jeremy Rosenlund, 425-452-7683

The following conditions are imposed under the Bellevue City Code or SEPA authority referenced:

1. **Building Permit Required:** Approval of this Critical Areas Land Use Permit does not constitute an approval of a development permit. Building Permit (type BS) approval is required. Plans submitted as part of the permit application shall be consistent with the plans, dated February 3, 2020, reviewed as part of this approval.

   Authority: Land Use Code 20.30P.140
   Reviewer: Drew Folsom, Development Services Department

2. **Temporary Erosion and Sedimentation Control Plan:** A temporary erosion and sedimentation control plan will be required as part of the building permit application and shall address all requirements for restoring areas of temporary construction disturbance, as well as erosion and sedimentation best management practices.

   Authority: Bellevue City Code 23.76
   Reviewer: Savina Uzunow, Development Services Department

3. **Hold Harmless Agreement:** Prior to building permit approval, the applicant or property owner shall submit a hold harmless agreement releasing the City of Bellevue from any and all liability associated with the steep slope buffer modification. The agreement must meet city requirements and must be reviewed by the City Attorney's Office for formal approval.

   Authority: Land Use Code 20.30P.170
   Reviewer: Drew Folsom, Development Services Department

4. **Mitigation Plan:** Consistent with the plan he applicant must include the mitigation planting plan including four native trees (Attachment 1) prepared by Altmann Oliver and Associates, Inc. as part of the building permit.

   Authority: Land Use Code 20.25H.255
   Reviewer: Drew Folsom, Development Services Department

5. **Maintenance and Monitoring Surety:** A financial surety is required to be submitted to ensure the mitigation planting successfully establishes. A maintenance assurance device that is equal to 20% of the cost of plants, installation, and the cost of monitoring is required to be held for a period of five years from the date of successful installation. A cost estimate is required to be provided with the building permit. The financial surety is required to be posted prior to building permit issuance. Release of the surety after the 5-year monitoring period is contingent upon a final inspection of the planting by Land Use Staff that finds the maintenance and monitoring plan was successful and meets performance standards.

   Authority: Land Use Code 20.25H.220
   Reviewer: Drew Folsom, Development Services Department

6. **Maintenance and Monitoring Reports:** The mitigation planting is required to be maintained and monitored for five years to ensure the plants successfully establish.

Annual monitoring reports are required to be submitted to document the plants are meeting approved performance standards. Photos from selected photo points shall be included in the monitoring reports to document the planting. Land Use inspection is required by the Land Use staff to end the plant monitoring period.

Reporting shall be submitted no later than the end of each growing season or by December 31st, and shall include a site plan and photos from photo points established at the time of Land Use inspection. Reports shall be submitted to Drew Folsom or Heidi Bedwell by the above-listed date and can be emailed to **dfolsom@bellevuewa.gov** or mailed directly to:

Environmental Planning Manager
Development Services Department
City of Bellevue
PO Box 90012
Bellevue, WA 98009-9012

Authority: Land Use Code 20.30P.140; 20.25H.220
Reviewer: Drew Folsom, Development Services Department

7. **Arborist Inspection and mitigation:** The project arborist must provide arborist inspection during installation of utility infrastructure to avoid and mitigate damage to existing trees. Unavoidable tree removal will be required to be mitigate by planting a minimum of 2 trees for every tree removed within the structure setback.

   Authority: Land Use Code 20.30P.140; 20.25H.220
   Reviewer: Drew Folsom, Development Services Department

8. **Geotechnical Review:** The project geotechnical engineer must review the final construction plans, including all foundation designs. A letter from the geotechnical engineer stating that the plans conform to the recommendations in the geotechnical report and any addendums and supplements must be submitted to the single-family addition building permit prior to issuance of the construction permit.

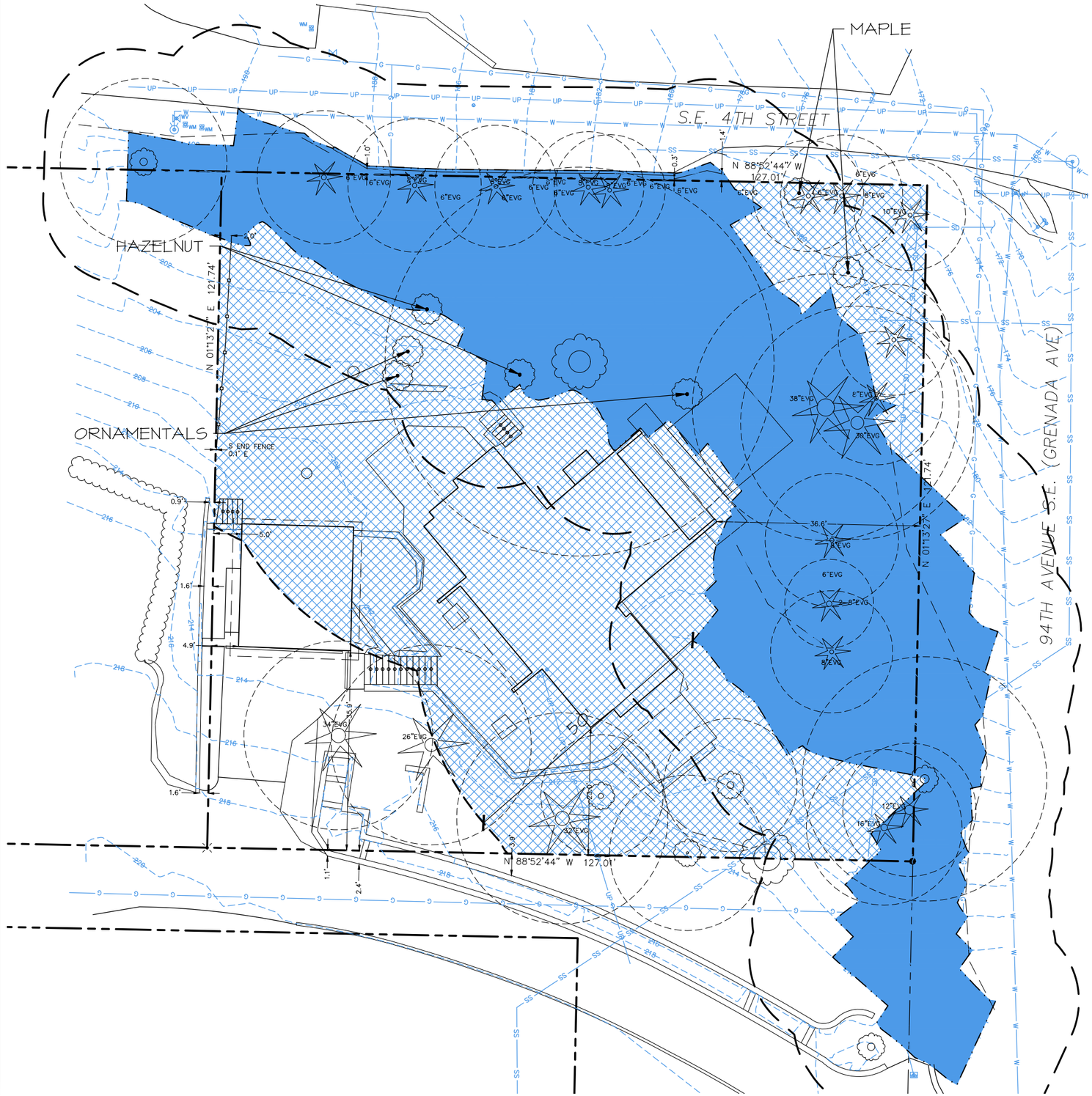
   Authority: Clearing & Grading Code 23.76.050
   Reviewer: Savina Uzunow, Development Services Department, Clearing & Grading Section

9. **Geotechnical Inspection:** The project geotechnical engineer must provide geotechnical inspection during project construction, including subgrades for foundations and footings, and any unusual seepage, slope, or subgrade conditions.

   Authority: Clearing & Grading Code 23.76.050
   Reviewer: Savina Uzunow, Development Services Department, Clearing & Grading Section

10. **Rainy Season Restrictions:** Due to steep slopes on the site, no clearing and grading activity may occur during the rainy season, which is defined as October 1 through April 30 without the written authorization of the Development Services Department. Should approval be granted for work during the rainy season, increased erosion and sedimentation measures, representing the best available technology must be implemented prior to beginning or resuming site work.

    Authority: Bellevue City Code 23.76.093.A,
    Reviewer: Savina Uzunow, Development Services Department, Clearing & Grading Section



CRITICAL AREAS LEGEND

- PROPERTY LINE
- TOP/TOE OF SLOPE
- STEEP SLOPE BUFFER (50' FROM TOP OF SLOPE AND 75' FROM BASE OF SLOPE
- REDUCED STEEP SLOPE BUFFER (15' PER GEOTECH
- 40%+ STEEP SLOPE
- STEEP SLOPE BUFFER

GRAPHIC SCALE (IN FEET)

0 10 20 30 40 60

SCALE: 1:20

N

NOTES

1. BASE INFORMATION PROVIDED BY MCCULLOUGH ARCHITECTS, (206) 443-1181.

PROJECT 6000
DRAWN SO
SCALE AS NOTED
DATE 09-04-19
REVISED 01-31-20
1/11

FIGURE 1: EXISTING CONDITIONS
BUFFER MITIGATION PLAN
ZHENG-ZEMEL PROPERTY
403 94TH AVE S.E.
BELLEVUE, WA 98004

Altmann Oliver Associates, LLC
AOA
Environmental Planning & Landscape Architecture
PO Box 578 Carnation, WA 98014 Office (425) 333-4535Fax (425) 333-4599

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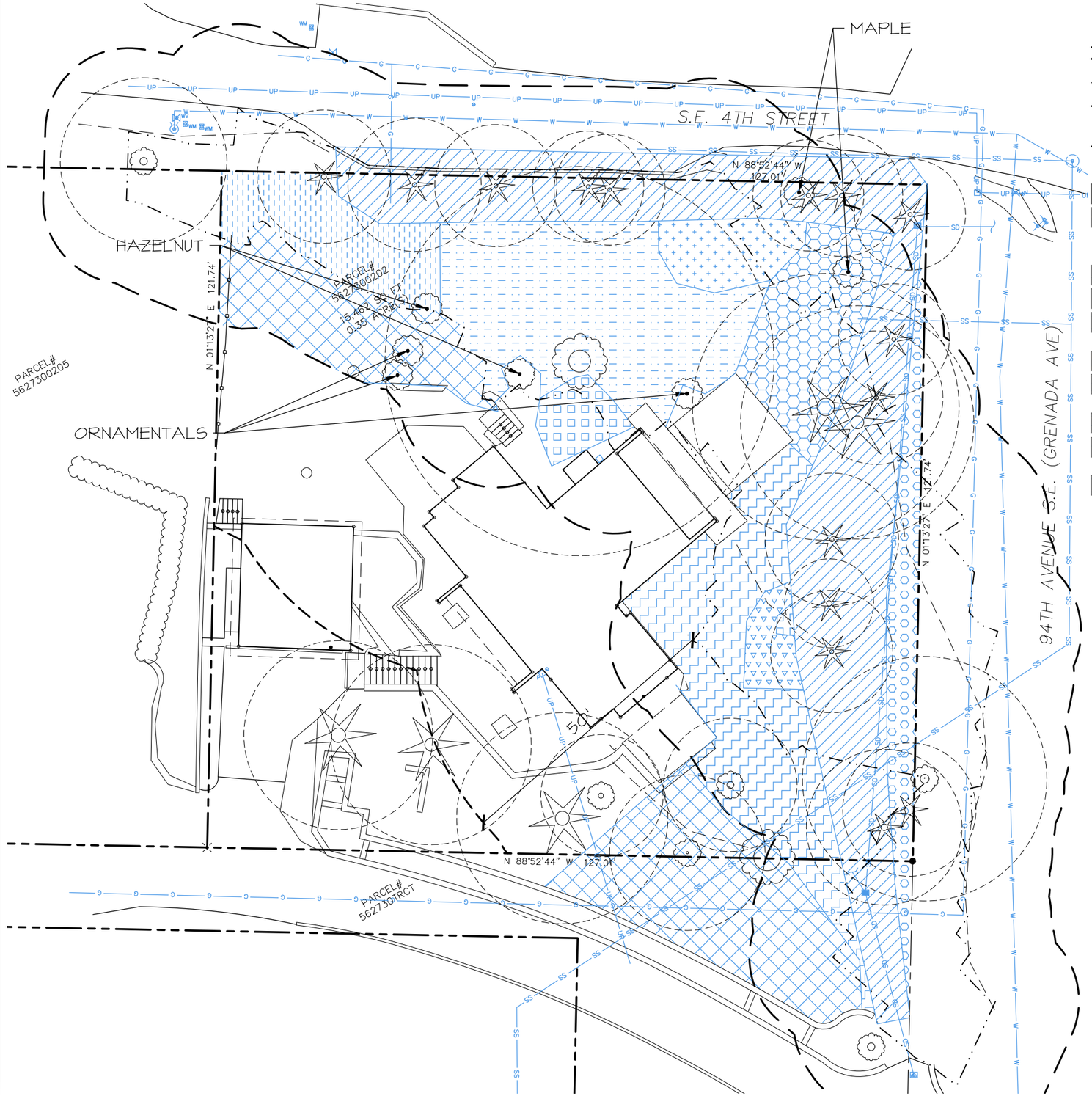

EXISTING VEGETATION LEGEND

- PROPERTY LINE
- TOP/TOE OF SLOPE
- STEEP SLOPE BUFFER (50' FROM TOP OF SLOPE AND 75' FROM BASE OF SLOPE
- REDUCED STEEP SLOPE BUFFER (15' PER GEOTECH)
- HERB ROBERT 75% COVER - 550 SF
- SNOWBERRY, SWORD FERN ~40% COVER, HIMALAYAN BLACKBERRY ~20% COVER - 1,429 SF
- DENSE HEDGE - 3,003 SF
- WATSON'S WILLOWHERB - 282 SF
- HIMALAYAN BLACKBERRY 15% COVER - 672 SF
- SWORD FERN 100% COVER - 184 SF
- HIMALAYAN BLACKBERRY 15% COVER - 494 SF
- HYPERICUM - 139 SF
- HIMALAYAN BLACKBERRY, PERIWINKLE, ENGLISH IVY 80% COVER - 1,283 SF
- HERB ROBERT 50% COVER - 1,922 SF

GRAPHIC SCALE
(IN FEET)

0 10 20 30 40 60

SCALE: 1:20

N

NOTES

1. BASE INFORMATION PROVIDED BY MCCULLOUGH ARCHITECTS, (206) 443-1181.

PROJECT 6000
DRAWN SO
SCALE AS NOTED
DATE 09-04-19
REVISED 01-31-20
2/11

FIGURE 2: EXISTING VEGETATION
BUFFER MITIGATION PLAN
ZHENG-ZEMEL PROPERTY
403 94TH AVE S.E.
BELLEVUE, WA 98004

Altmann Oliver Associates, LLC
AOA
Environmental Planning & Landscape Architecture
PO Box 578 Carnation, WA 98014 Office (425) 333-4535 Fax (425) 333-4569

6000-MIT-01-31-20.dwg

PLAN LEGEND

- PROPERTY LINE
- TOP/TOE OF SLOPE
- STEEP SLOPE BUFFER (50' FROM TOP OF SLOPE AND 75' FROM BASE OF SLOPE
- REDUCED STEEP SLOPE BUFFER (15' PER GEOTECH
- CLEARING LIMITS

EXISTING IMPERVIOUS LEGEND

IMPERVIOUS FOR HOUSE	1,797 SF
OTHER IMPERVIOUS SURFACE (GROUTED BRICK PATIOS, DRIVEWAY, WALLS)	2,179 SF
EXISTING PERVIOUS DECK	494 SF
TOTAL EXISTING IMPERVIOUS	3,976 SF

GRAPHIC SCALE
(IN FEET)

0 10 20 30 40 60

SCALE: 1:20

N

NOTES

1. BASE INFORMATION PROVIDED BY MCCULLOUGH ARCHITECTS, (206) 443-1181.

PROJECT 6000
DRAWN SO
SCALE AS NOTED
DATE 09-04-19
REVISED 01-31-20
3/11

FIGURE 3: EXISTING IMPERVIOUS PLAN
BUFFER MITIGATION PLAN
ZHENG-ZEMEL PROPERTY
403 94TH AVE S.E.
BELLEVUE, WA 98004

Altmann Oliver Associates, LLC
AOA
Environmental Planning & Landscape Architecture
PO Box 578 Carnation, WA 98014 Office (425) 333-4535 Fax (425) 333-4569

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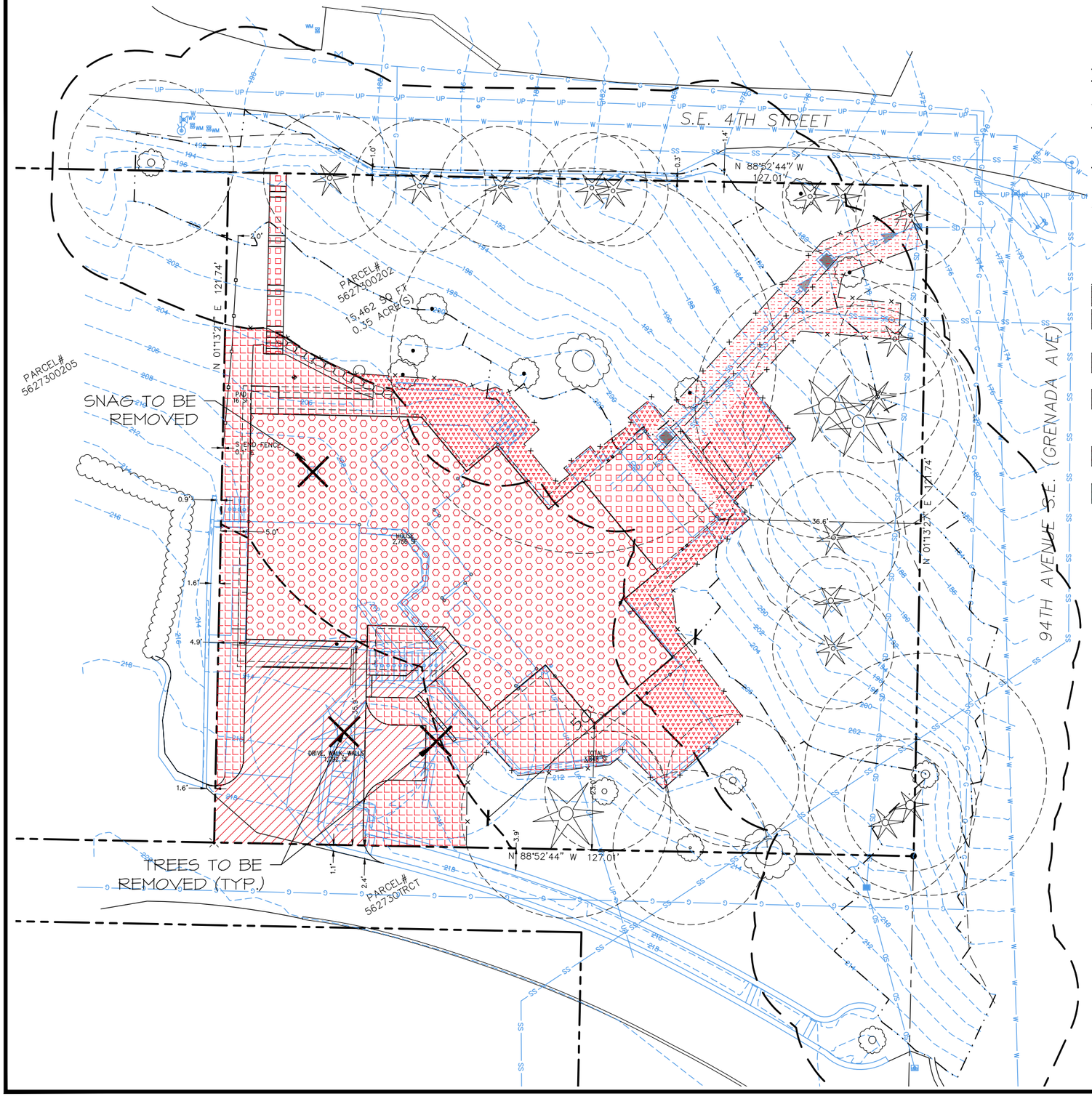

PLAN LEGEND

- PROPERTY LINE
- TOP/TOE OF SLOPE
- STEEP SLOPE BUFFER (50' FROM TOP OF SLOPE AND 75' FROM BASE OF SLOPE
- REDUCED STEEP SLOPE BUFFER (15' PER GEOTECH
- CLEARING LIMITS

PROPOSED IMPERVIOUS LEGEND

NEW IMPERVIOUS FOR HOUSE	2,756 SF
NEW OTHER IMPERVIOUS (DRIVE, WALK, WALLS)	1,091 SF
NEW PROPOSED PERVIOUS DECK & STAIRWAY	410 SF
TEMPORARY IMPACT FOR UTILITY INSTALLATION TO BE RESTORED	616 SF
TEMPORARY IMPACT TO BE RESTORED	945 SF
TEMPORARY IMPACT TO BE RE-LANDSCAPED	1,676 SF
NET NEW IMPERVIOUS	183 SF

GRAPHIC SCALE
(IN FEET)

0 10 20 30 40 60

SCALE: 1:20

N

NOTES

1. BASE INFORMATION PROVIDED BY MCCULLOUGH ARCHITECTS, (206) 443-1181.

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FIGURE 4: PROPOSED IMPERVIOUS PLAN
BUFFER MITIGATION PLAN
ZHENG-ZEMEL PROPERTY
403 94TH AVE S.E.
BELLEVUE, WA 98004

Altmann Oliver Associates, LLC
AOA Environmental Planning & Landscape Architecture
PO Box 578 Carnation, WA 98014 Office (425) 333-4535 Fax (425) 333-4599

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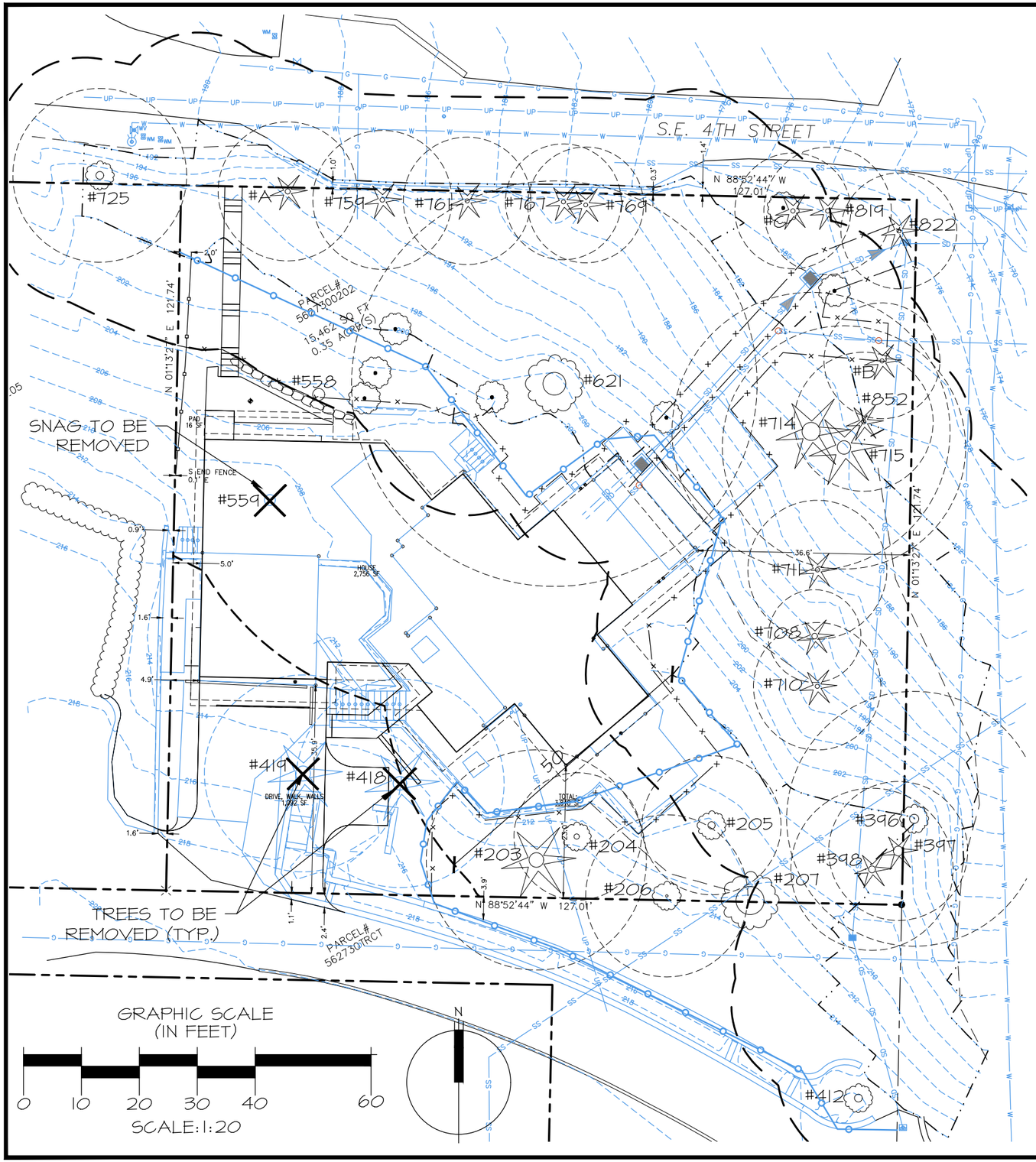

EXISTING TREE SUMMARY

TOTAL DIAMETER INCHES	451.3
RETAINED DIAMETER INCHES	369.8
PERCENT RETAINED DIAMETER INCHES	82%
TOTAL ONSITE TREES	27
RETAINED ONSITE TREES	24
ONSITE TREES TO BE REMOVED	3

TREE PROTECTION FENCE (PER ARBORIST REPORT)

EXISTING TREES

TREE #	SPECIES	DBH	DRIPLINE	RETAIN	REMOVE
203	DOUGLAS FIR	30"	19'	X	
204	PACIFIC DOGWOOD	11.1"	11'	X	
205	PACIFIC DOGWOOD	15.1"	12'	X	
206	RED ALDER	4.8"	14'	X	
207	BIGLEAF MAPLE	29.1"	24'	X	
397	WESTERN HEMLOCK	10.1"	12'	X	
398	WESTERN HEMLOCK	14.1"	14'	X	
418	DOUGLAS FIR	28"	18'		X
419	DOUGLAS FIR	31"	17'		X
558	DOUGLAS FIR	25.3"	0'	X	
559	DOUGLAS FIR	22.5"	0'		X
621	BIGLEAF MAPLE	47.3"	35'	X	
708	INCENSE CEDAR	11.8"	8'	X	
710	WESTERN RED CEDAR	8.6"	11'	X	
711	WESTERN RED CEDAR	8.9"	12'	X	
714	DOUGLAS FIR	37.2"	24'	X	
715	DOUGLAS FIR	27.9"	21'	X	
759	LEYLAND CYPRESS	9.2"	12'	X	
761	LEYLAND CYPRESS	8.5"	11'	X	
767	LEYLAND CYPRESS	8.4"	10'	X	
769	LEYLAND CYPRESS	8.2"	10'	X	
*819	LEYLAND CYPRESS	8.9"	11'	X	
*822	LEYLAND CYPRESS	8.7"	10'	X	
852	LEYLAND CYPRESS	8.8"	12'	X	
A	LEYLAND CYPRESS	10.4"	12'	X	
*B	LEYLAND CYPRESS	8.5"	10'	X	
*C	LEYLAND CYPRESS	8.9"	10'	X	
OFF-SITE TREES					
396	BIGLEAF MAPLE	0"	22'	X	
412	RED ALDER	0"	15'	X	
725	BIGLEAF MAPLE	0"	15'	X	

*POTENTIAL TREES THAT MAY BE WITHIN DISTURBANCE AREA THAT MAY REQUIRE REMOVAL PER ARBORIST REPORT.

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FIGURE 5: TREE PROTECTION PLAN
BUFFER MITIGATION PLAN
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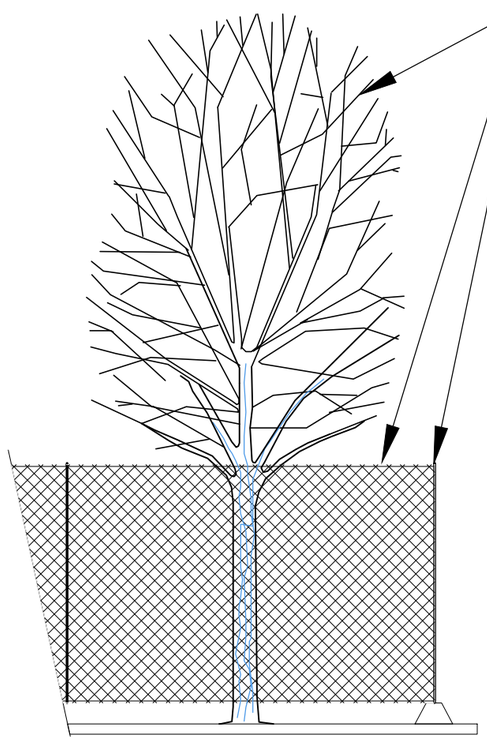

NOTES:

1) 6' HIGH TEMPORARY CHAINLINK FENCE SHALL BE PLACED AROUND TREES INDICATED ON PLANS. FENCE SHALL COMPLETELY ENCIRCLE TREE(S). INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.
2) MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT FOR ALL ROOTS OVER 1" IN DIA. DAMAGED DURING CONSTRUCTION. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP AND COVERED WITH SOILS THE SAME DAY, IF POSSIBLE, TO PREVENT DRYING. IF NOT POSSIBLE, BURLAP MUST BE KEPT MOIST AT ALL TIMES.
3) WORK WITH THE PROTECTION FENCING SHALL BE DONE MANUALLY. NO STOCKPILING OF MATERIALS, SOIL, DEBRIS, VEHICLE TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING.
4) CONCRETE TRUCKS MUST NOT BE ALLOWED TO DEPOSIT WASTE OR WASH OUT MATERIALS FROM THEIR TRUCKS WITHIN THE TREE PROTECTION FENCES.
5) THE TREE PROTECTION FENCES SHALL BE CLEARLY MARKED WITH THE FOLLOWING OR SIMILAR TEXT IN 4" OR LARGER LETTERS: "TREE PROTECTION FENCE; DO NOT ENTER THIS AREA; DO NOT PARK OR STORE MATERIALS WITHIN THE PROTECTION AREA"
6) THE AREA WITHIN THE TREE PROTECTION FENCING MUST BE COVERED WITH WOOD CHIPS, HOG FUEL, OR SIMILAR MATERIALS TO A DEPTH OF 8 TO 10 INCHES. THE MATERIALS SHOULD BE PLACED PRIOR TO BEGINNING CONSTRUCTION AND REMAIN UNTIL THE TREE PROTECTION FENCING IS TAKEN DOWN.

1 TREE PROTECTION FENCE

SCALE: NTS

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FIGURE 6: TREE PROTECTION FENCE DETAIL
BUFFER MITIGATION PLAN
ZHENG-ZEMEL PROPERTY
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PLAN LEGEND

- PROPERTY LINE
- TOP/TOE OF SLOPE
- STEEP SLOPE BUFFER (50' FROM TOP OF SLOPE AND 75' FROM BASE OF SLOPE
- REDUCED STEEP SLOPE BUFFER (15' PER GEOTECH
- CLEARING LIMITS

MITIGATION LEGEND

STEEP SLOPE RESTORATION	3,848 SF
STEEP SLOPE BUFFER RESTORATION	2,495 SF

GRAPHIC SCALE (IN FEET)

0 10 20 30 40 60

SCALE:1:20

N

NOTES

1. BASE INFORMATION PROVIDED BY MCCULLOUGH ARCHITECTS, (206) 443-1181.

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FIGURE 7: MITIGATION PLAN
BUFFER MITIGATION PLAN
ZHENG-ZEMEL PROPERTY
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PLANT LIST (SEE FIGURE 9 FOR SCHEDULE)

LARGE TREES

KEY	SCIENTIFIC NAME	COMMON NAME
CN	CORNUS NUTTALII	PACIFIC DOGWOOD
PC	PINUS CONTORTA	SHORE PINE
TP	THUJA PLICATA	WESTERN RED CEDAR

SMALL TREES

KEY	SCIENTIFIC NAME	COMMON NAME
AC	ACER CIRCINATUM	VINE MAPLE

SHRUBS

KEY	SCIENTIFIC NAME	COMMON NAME
M	MAHONIA AQUIFOLIUM	TALL OREGON GRAPE
OC	OEMLERIA CERASIFORMIS	INDIAN PLUM
RS	RIBES SANGUINEUM	RED CURRANT
S	SYMPHORICARPOS ALBUS	SNOWBERRY
V	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY

GROUNDCOVER

KEY	SCIENTIFIC NAME	COMMON NAME
	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK
	GAULTHERIA SHALLON	SALAL
	POLYSTICHUM MUNITUM	SWORD FERN

CANDIDATE TREE MITIGATION

KEY	SCIENTIFIC NAME	COMMON NAME
TE	THUJA PLICATA 'EXCELSA'	EXCELSA CEDAR

GRAPHIC SCALE (IN FEET)

0 10 20 30 40 60

SCALE: 1:20

N

NOTES

1. BASE INFORMATION PROVIDED BY MCCULLOUGH ARCHITECTS, (206) 443-1181.

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FIGURE 8: PLANTING PLAN
BUFFER MITIGATION PLAN
ZHENG-ZEMEL PROPERTY
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PLANT SCHEDULE

LARGE TREES

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
CN	CORNUS NUTTALII	PACIFIC DOGWOOD	10' O.C.	1	5 GAL.	SINGLE TRUNK, WELL BRANCHED
PC	PINUS CONTORTA	SHORE PINE	8' O.C.	1	5 GAL.	FULL & BUSHY
TP	THUJA PLICATA	WESTERN RED CEDAR	10' O.C.	1	5 GAL.	FULL & BUSHY

SMALL TREES

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
AC	ACER CIRCINATUM	VINE MAPLE	6' O.C.	4	5 GAL.	MULTI-STEM (3 MIN.)

SHRUBS

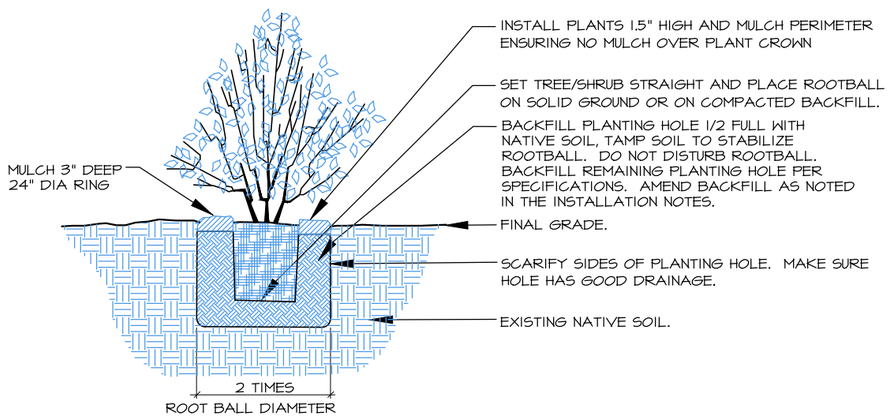
KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
M	MAHONIA AQUIFOLIUM	TALL OREGON GRAPE	3' O.C.	121	2 GAL.	FULL & BUSHY
OC	OEMLERIA CERASIFORMIS	INDIAN PLUM	5' O.C.	5	1 GAL.	MULTI-STEM (3 MIN.)
RS	RIBES SANGUINEUM	RED CURRANT	5' O.C.	5	2-5 GAL.	MULTI-STEM (3 MIN.)
S	SYMPHORICARPOS ALBUS	SNOWBERRY	3' O.C.	103	2 GAL.	MULTI-STEM (3 MIN.)
V	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	2' O.C.	109	2 GAL.	FULL & BUSHY

GROUNDCOVER

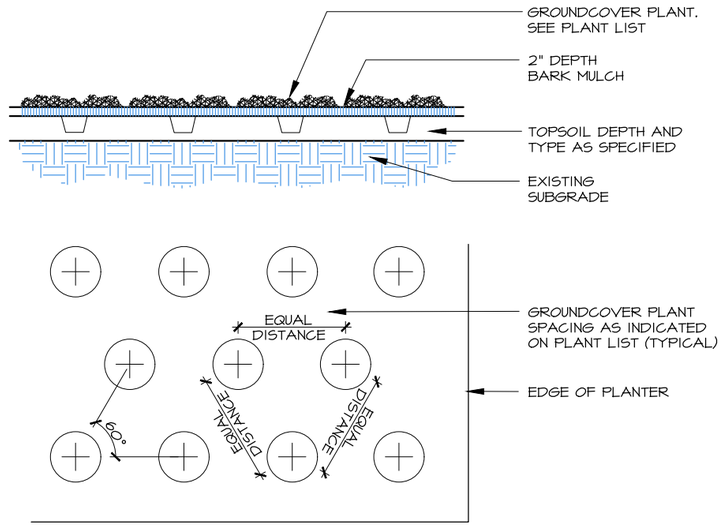
KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	2' O.C.	TBD	1 GAL.	FULL & BUSHY
	GAULTHERIA SHALLON	SALAL	2' O.C.	TBD	1 GAL.	FULL & BUSHY
	POLYSTICHUM MUNITUM	SWORD FERN	3' O.C.	75	1 GAL.	FULL & BUSHY

CANDIDATE TREE MITIGATION (3:1 TREE REPLACEMENT)

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
TE	THUJA PLICATA 'EXCELSA'	EXCELSA CEDAR	AS SHOWN	9	5 GAL.	FULL & BUSHY



1 CONTAINER TREE/SHRUB PLANTING (TYP.)
SCALE: NTS



3 GROUNDCOVER PLANTING (TYP.)
SCALE: NTS

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FIGURE 9: PLANT SCHEDULE
BUFFER MITIGATION PLAN
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SPECIFICATIONS

1. THIS PLAN PERTAINS TO PLANTING PORTION OF THE SITE WORK ONLY.
2. CONTRACTOR INFORMATION. WHEN IT IS AVAILABLE, CONTACT INFORMATION SHALL BE PROVIDED TO THE CITY OF BELLEVUE THAT INCLUDES NAMES, ADDRESSES AND PHONE NUMBERS OF PERSONS/FIRMS THAT WILL BE RESPONSIBLE FOR INSTALLING REQUIRED PLANTS AND PERFORMING REQUIRED MAINTENANCE.
3. CONTRACTOR'S QUALIFICATIONS. ALL WORK SHALL BE PERFORMED BY A LICENSED LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF WASHINGTON. CONTRACTOR MUST BE EXPERIENCED IN MITIGATION AND RESTORATION WORK. THE CONTRACTOR SHALL PROVIDE THAT THERE IS ONE PERSON ON THE SITE AT ALL TIMES DURING WORK AND INSTALLATION WHO IS THOROUGHLY FAMILIAR WITH THE TYPE OF MATERIALS BEING INSTALLED AND THE BEST METHODS FOR THEIR INSTALLATION, AND WHO SHALL DIRECT ALL WORK BEING PERFORMED UNDER THESE SPECIFICATIONS. THIS PERSON SHALL HAVE A MINIMUM OF FIVE (5) YEARS EXPERIENCE INSTALLING NATIVE PLANT MATERIALS FOR WETLAND MITIGATION OR RESTORATION PROJECTS, UNLESS OTHERWISE ALLOWED BY THE LANDSCAPE DESIGNER, WETLAND BIOLOGIST AND/OR THE CITY OF BELLEVUE.
4. SEE ARBORIST REPORT FOR SPECIFIC TREE PROTECTION SPECIFICATIONS.
5. EXISTING STRUCTURES AND NON-NATURAL MATERIALS SHALL BE REMOVED FROM ALL MITIGATION AND LANDSCAPED AREAS PRIOR TO PLANTING.
6. ALL PLANTING AREAS OF PREVIOUS IMPERVIOUS OR TEMPORARILY-IMPACTED AREAS OUTSIDE THE DRIPLINE OF THE EXISTING TREES TO BE SAVED SHALL BE OVER-EXCAVATED 12" FOR PLACEMENT OF 12" OF IMPORTED 3-WAY TOPSOIL (DEJONG'S) OR STOCKPILED NATIVE TOPSOIL. AOA TO APPROVE TOPSOIL PRIOR TO PLACEMENT.
7. ALL PLANTS SHOULD BE INSTALLED BETWEEN DECEMBER 1ST AND MARCH 15TH.
8. INTERMEDIATE INSPECTIONS. ALL PLANTS SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE DESIGNER AND/OR WETLAND BIOLOGIST PRIOR TO INSTALLATION. CONDITION OF ROOTS OF A RANDOM SAMPLE OF PLANTS WILL BE INSPECTED, AS WELL AS ALL ABOVEGROUND GROWTH ON ALL PLANTS. ROOTS OF ANY BARE ROOT PLANTS, IF PERMITTED FOR USE, WILL BE INSPECTED. PLANT MATERIAL MAY BE APPROVED AT THE SOURCE, AT THE DISCRETION OF THE LANDSCAPE DESIGNER AND THE WETLAND BIOLOGIST, BUT ALL MATERIAL MUST BE RE-INSPECTED AND APPROVED ON THE SITE PRIOR TO INSTALLATION. PLANT LOCATIONS SHALL ALSO BE INSPECTED AND APPROVED PRIOR TO PLANTING.
9. PRIOR TO INSTALLATION OF PLANT MATERIAL, THE PLANTING AREAS WILL BE LAID OUT BASED ON THE PLANTING PLAN, AND ALL HIMALAYAN BLACKBERRY, ENGLISH IVY OR OTHER INVASIVE PLANT SPECIES LOCATED IN THE PLANTING AREAS WILL BE REMOVED BY HAND.
10. ALL PLANTS SHALL BE PIT-PLANTED IN PLANTING PITS EXCAVATED 2X THE DIAMETER OF THE PLANT. PLANTS SHALL BE INSTALLED 3" HIGH AND SURFACED MULCHED TO A DEPTH OF 3" WITH MEDIUM-COURSE BARK MULCH PLACED CONTINUOUSLY THROUGHOUT THE PLANTING BED.
11. ALL PLANTS SHALL BE NURSERY GROWN (IN WESTERN WA OR OR) FOR AT LEAST 1 YEAR FROM PURCHASE DATE, FREE FROM DISEASE OR PESTS, WELL-ROOTED, BUT NOT ROOT-BOUND AND TRUE TO SPECIES.
12. PLANT LAYOUT SHALL BE APPROVED BY AOA PRIOR TO INSTALLATION AND APPROVED UPON COMPLETION OF PLANTING.
13. UPON COMPLETION OF PLANTING, ALL PLANTS SHALL BE THOROUGHLY WATERED.
14. UPON APPROVAL OF PLANTING INSTALLATION BY AOA, THE CITY OF BELLEVUE WILL BE NOTIFIED TO CONDUCT A SITE REVIEW FOR FINAL APPROVAL OF CONSTRUCTION.
15. MAINTENANCE SHALL BE REQUIRED IN ACCORDANCE WITH THE CITY OF BELLEVUE SENSITIVE AREAS MITIGATION GUIDELINES AND APPROVED PLANS.
20. AN IRRIGATION SHALL BE DESIGN/BUILT BY LANDSCAPE CONTRACTOR TO PROVIDE SEPARATE ZONE COVERAGE TO THE LAWN AREAS VERSUS THE PLANTING BEDS.
21. THE ZONE TO THE PLANTING BEDS SHALL BE SET TO PROVIDE 1/2" OF FLOW 2-3 TIMES WEEKLY FROM JULY 1 –OCTOBER 31 THE FIRST YEAR AFTER PLANTING. FLOW SHALL REDUCE TO 1-2 TIMES WEEKLY THE SECOND YEAR AFTER PLANTING AND ONCE WEEKLY THE YEARS 3-5. NO FURTHER IRRIGATION IS NECESSARY AFTER THE THIRD YEAR FOR THE NATIVE PLANTING BEDS.
22. THE IRRIGATION SYSTEM SHALL UTILIZE MP-3 ROTARY HEADS AND WILL HAVE A RAIN SENSOR ATTACHED.
23. MAINTENANCE SHALL BE IMPLEMENTED ON A REGULAR BASIS ACCORDING TO THE SCHEDULE BELOW.

ANNUAL MAINTENANCE SCHEDULE

MAINTENANCE ITEM	J	F	M	A	M	J	J	A	S	O	N	D
WEED CONTROL			1		1	1	1	1	1	1		
GENERAL MAINT.			1		1	1	1	1	1	1		
WATERING - YEAR 1						4	8	8	8			
WATERING - YEAR 2						4	8	8	8			
WATERING - YEARS 3-5						4	4	4	4			

1-8 = NUMBER OF TIMES TASK SHALL BE PERFORMED PER MONTH.

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FIGURE 10: SPECIFICATIONS
BUFFER MITIGATION PLAN
ZHENG-ZEMEL PROPERTY
403 94TH AVE S.E.
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MAINTENANCE & MONITORING PLAN

CONSTRUCTION MANAGEMENT

1. Prior to commencement of any work in the steep slope and shoreline setback enhancement areas, the clearing limits will be staked and all existing vegetation to be saved will be clearly marked. A pre-installation meeting will be held at the site to review and discuss all aspects of the project with the owner.
2. A biologist will supervise plan implementation during construction to ensure that objectives and specifications of the steep slope and shoreline setback enhancement plan are met.
3. Any necessary significant modifications to the design that occur as a result of unforeseen site conditions will be jointly approved by the City of Bellevue and the biologist prior to their implementation.

MONITORING METHODOLOGY

1. The monitoring program will be conducted twice yearly (in the beginning and end of the growing season) for a period of five years, with reports submitted annually (at the end of the growing season) to the City of Bellevue.
2. Vegetation establishment within the steep slope and shoreline setback enhancement areas will be monitored during each field visit with a record kept of all plant species found.
3. Photo-points will be established from which photographs will be taken throughout the monitoring period. These photographs will document general appearance and progress in plant community establishment in the enhancement areas. Review of the photos over time will provide a semi-quantitative representation of success of the enhancement plan.

PERFORMANCE STANDARDS

Success of plant establishment within the steep slope and shoreline setback enhancement areas will be evaluated on the basis of percent survival of planted species.

1. Native woody cover will be a minimum of; 10% at construction completion, 15% at year 1, 20% at year 2, 25% at year 3 and 40% at year 5.
2. There will be 100% survival of all woody planted species throughout the mitigation planted area at the end of the first year of planting. For years 2-5, success will be based on an 85% survival rate or similar number of recolonized native woody plants.
3. Exotic and invasive plant species will be maintained at levels below 10% total cover. Removal of these species will occur immediately following the monitoring event in which they surpass the above maximum coverage. Removal will occur by hand whenever possible.

MAINTENANCE (M) & CONTINGENCY (C)

1. Established performance standards for the project will be compared to the monitoring results in order to judge the success of the enhancement project.
2. Contingency will include many of the items listed below and would be implemented if these performance standards are not met.
3. Maintenance and remedial action on the site will be implemented immediately upon completion of the monitoring event, (unless otherwise specifically indicated below).

- replace dead plants with the same species or a substitute species that meet the goal of the enhancement plan (C)
- re-plant areas after reason for failure has been identified (e.g., moisture regime, poor plant stock, disease, shade/sun conditions, wildlife damage, etc.) (C)
- irrigate following plant installation for five years (M)

PERFORMANCE BOND

1. A performance bond or other surety device will be posted with the City of Bellevue by the applicant to cover the costs of steep slope and shoreline setback enhancement plan implementation (including labor, materials, maintenance, and monitoring).
2. The bond or assignment may be released in partial amounts in proportion to work successfully completed over the five year monitoring period, as the applicant demonstrates performance and corrective measures.

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FIGURE 11: MAINTENANCE & MONITORING PLAN
BUFFER MITIGATION PLAN
ZHENG-ZEMEL PROPERTY
403 94TH AVE S.E.
BELLEVUE, WA 98004

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TOPOGRAPHIC & BOUNDARY SURVEY

LEGAL DESCRIPTION

(PER STATUTORY WARRANTY DEED UNDER RECORDING NUMBER 20060929003502)

THE EASTERLY 127 FEET OF THE FOLLOWING DESCRIBED PROPERTY:

THAT PORTION OF THE PLAT OF MOORLAND, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 4 OF PLATS, PAGE 103, IN KING COUNTY, WASHINGTON, AND VACATED STREETS AND ALLEYS WITHIN SAID PLAT DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION POINT OF THE CENTERLINE OF 94TH AVENUE S.E., SAID CENTERLINE NOW BEING THE WEST MARGIN OF SAID 94TH AVENUE S.E., WITH THE NORTH BOUNDARY OF SAID PLAT OF MOORLAND;
THENCE DUE SOUTH ALONG SAID CENTERLINE AND WEST MARGIN A DISTANCE OF 121.74 FEET;
THENCE SOUTH 89°53'49" WEST A DISTANCE OF 170.00 FEET;
THENCE DUE SOUTH A DISTANCE OF 7.50 FEET;
THENCE SOUTH 89°53'49" WEST A DISTANCE OF 274.67 FEET TO A LINE WHICH IS 8.69 FEET WEST OF AND PARALLEL TO WHEN MEASURED AT RIGHT ANGLES FROM THE WESTERLY MARGIN OF BLOCK 8 OF SIAD PLAT OF MOORLAND;
THENCE DUE NORTH ALONG SAID PARALLEL LINE A DISTANCE OF 129.24 FEET TO THE NORTH BOUNDARY OF SAID PLAT OF MOORLAND;
THENCE NORTH 89°53'49" EAST ALONG SAID NORTH BOUNDARY A DISTANCE OF 444.69 FEET TO THE POINT OF BEGINNING;

TOGETHER WITH AN UNDIVIDED QUARTER INTEREST IN THAT PORTION OF THE PLAT OF MOORLAND DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION POINT OF THE CENTERLINE OF 94TH AVENUE S.E., SAID CENTERLINE NOW BEING THE WEST MARGIN OF SAID 94TH AVENUE S.E., WITH THE NORTH BOUNDARY OF SAID PLAT OF MOORLAND;
THENCE DUE SOUTH ALONG SAID CENTERLINE AND WEST MARGIN A DISTANCE OF 121.74 FEET TO THE TRUE POINT OF BEGINNING;
THENCE CONTINUING DUE SOUTH ALONG SAID CENTERLINE AND WESTERLY MARGIN A DISTANCE OF 227.50 FEET TO THE EASTERLY EXTENSION ON THE SOUTH LINE OF LOT 28, BLOCK 9 OF SAID PLAY OF MOORLAND;
THENCE SOUTH 89°53'49" WEST 60 FEET;
THENCE DUE NORTH FOR A DISTANCE OF 212.50 FEET;
THENCE SOUTH 89°53'49" WEST A DISTANCE OF 110.00 FEET;
THENCE DUE NORTH A DISTANCE OF 15.00 FEET;
THENCE NORTH 89°53'49" EAST A DISTANCE OF 170.00 FEET TO THE TRUE POINT OF BEGINNING.

VERTICAL DATUM

NAVD88 PER CITY OF BELLEVUE VERTICAL STA. NO. 264

3"x3" CONCRETE MON W/ LEAD & TACK IN CASE;
TOP MON TO TOP RIM CASE 0.73 FEET IN SOUTHEAST QUADRANT OF INTERSECTION 98TH AVE SE/99TH AVE SE & SE 7TH ST.

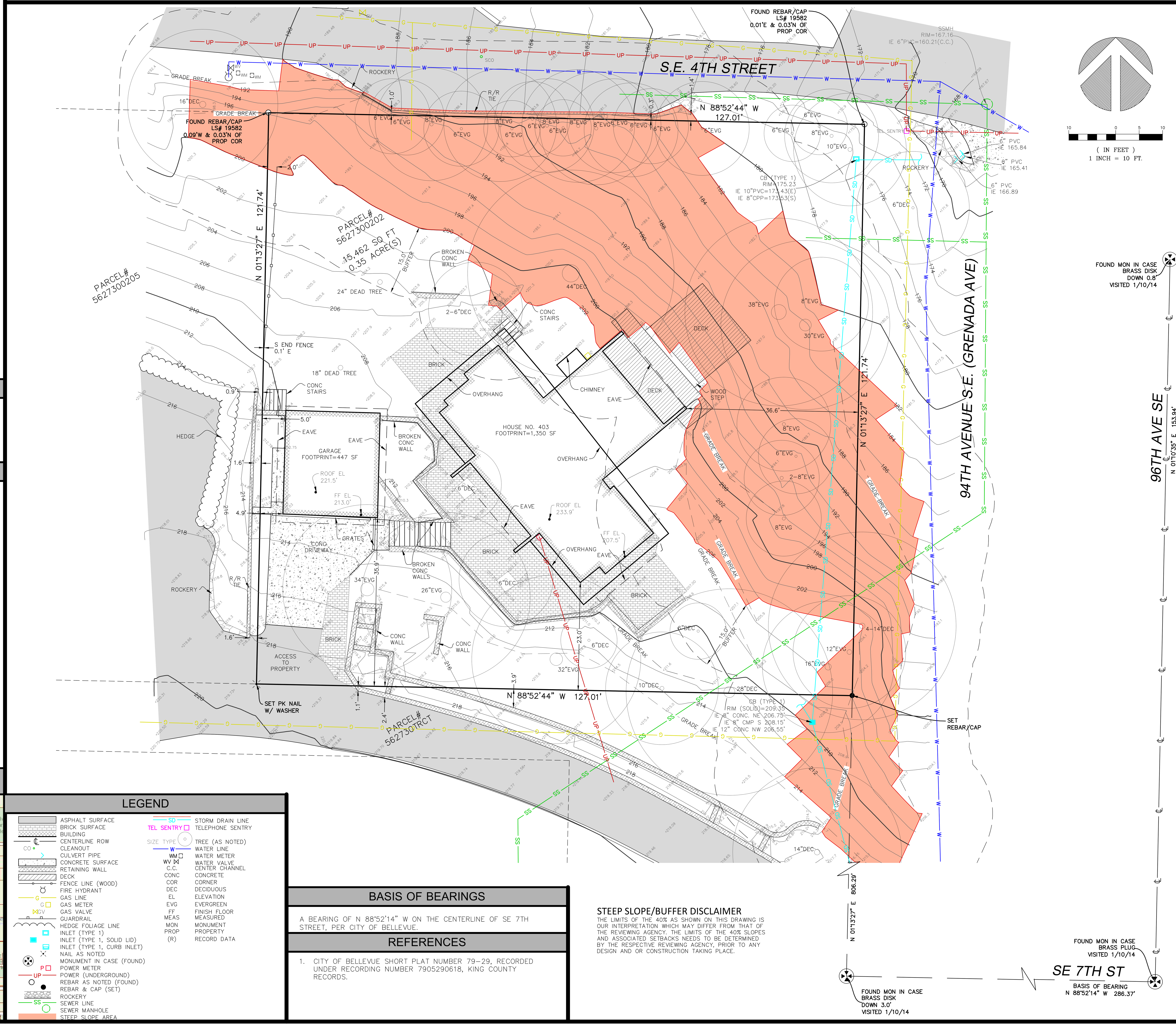
ELEV: 169.61'

SURVEYOR'S NOTES

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN DECEMBER OF 2017. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. BURIED UTILITIES SHOWN BASED ON RECORDS FURNISHED BY OTHERS AND VERIFIED WHERE POSSIBLE IN THE FIELD. TERRANE ASSUMES NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS OR ACCEPT RESPONSIBILITY FOR UNDERGROUND LINES WHICH ARE NOT MADE PUBLIC RECORD. FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO DESIGN CONTACT THE UTILITY OWNER/AGENCY. AS ALWAYS, CALL 1-800-424-5555 BEFORE CONSTRUCTION.
4. SUBJECT PROPERTY TAX PARCEL NO. 5627300202.
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 15,462 S.F. (0.35 ACRES)
6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
7. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

VICINITY MAP

N.T.S.



LEGEND

ASPHALT SURFACE	SD STORM DRAIN LINE
BRICK SURFACE	TEL SENTRY TELEPHONE SENTRY
BUILDING	SIZE TYPE TREE (AS NOTED)
℄ CENTERLINE ROW	W WATER LINE
CO CLEANOUT	WM WATER METER
CULVERT PIPE	WV WATER VALVE
CONCRETE SURFACE	C.C. CENTER CHANNEL
RETAINING WALL	CONC CONCRETE
DECK	COR CORNER
FENCE LINE (WOOD)	DEC DECIDUOUS
FIRE HYDRANT	EL ELEVATION
G GAS LINE	EVG EVERGREEN
G GAS METER	FF FINISH FLOOR
GV GAS VALVE	MEAS MEASURED
GUARDRAIL	MON MONUMENT
HEDGE FOLIAGE LINE	PROP PROPERTY
INLET (TYPE 1)	(R) RECORD DATA
INLET (TYPE 1, SOLID LID)	
INLET (TYPE 1, CURB INLET)	
NAIL AS NOTED	
MONUMENT IN CASE (FOUND)	
P POWER METER	
UP POWER (UNDERGROUND)	
REBAR AS NOTED (FOUND)	
REBAR & CAP (SET)	
ROCKERY	
SS SEWER LINE	
SEWER MANHOLE	
STEEP SLOPE AREA	

BASIS OF BEARINGS

A BEARING OF N 88°52'14" W ON THE CENTERLINE OF SE 7TH STREET, PER CITY OF BELLEVUE.

REFERENCES

1. CITY OF BELLEVUE SHORT PLAT NUMBER 79-29, RECORDED UNDER RECORDING NUMBER 7905290618, KING COUNTY RECORDS.

STEEP SLOPE/BUFFER DISCLAIMER

THE LIMITS OF THE 40% AS SHOWN ON THIS DRAWING IS OUR INTERPRETATION WHICH MAY DIFFER FROM THAT OF THE REVIEWING AGENCY. THE LIMITS OF THE 40% SLOPES AND ASSOCIATED SETBACKS NEEDS TO BE DETERMINED BY THE RESPECTIVE REVIEWING AGENCY, PRIOR TO ANY DESIGN AND OR CONSTRUCTION TAKING PLACE.

measure success

TOPOGRAPHIC & BOUNDARY SURVEY
SW 1/4 OF SE 1/4 SEC 31, TWP. 25N., RGE 05E., W.M.
PARCEL NO. 5627300202

ZEMEL RESIDENCE
403 94TH AVENUE S.E.
BELLEVUE, WA. 98004

EDWIN J. GREEN JR. — STATE OF WASHINGTON — REGISTERED PROFESSIONAL LAND SURVEYOR — 15025
06/20/19

Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

JOB NUMBER:	171077
DATE:	12/06/17
DRAFTED BY:	VLJ
CHECKED BY:	MAB
SCALE:	1"= 10'

REVISION HISTORY

12/14/18	SLOPE BUFFER
5/17/19	UPDATE BUFFER
6/20/19	UPDATE BUFFER

SHEET NUMBER
1 OF 1

Greenforest Incorporated

Consulting Arborist

TO: Zinnia Zheng & Radek Zemel
403 94th Ave SE
Bellevue WA 98004

REFERENCE: Arborist Report

SITE ADDRESS: 403 94th Ave SE, Bellevue WA 98004

DATE: August 21, 2019

PREPARED BY: Favero Greenforest, ISA Certified Arborist # PN -0143A
ISA Tree Risk Assessment Qualified
ASCA Registered Consulting Arborist® #379

You contacted me and contracted my services as a consulting arborist. My assignment is to inventory and evaluate all existing trees on the site and trees immediately adjacent with driplines or expected root zones extending onto the project site.

I received a Preliminary Tree Plan prepared by McCullough Architects dated 7/8/2019. I visited the site 7/9/2019 and assessed the regulated trees, which are the subject of this report. The onsite trees have a combined diameter total of 451.3 inches. Three of the 27 onsite trees are proposed for removal.

Summary:

Total Diameter Inches	*451.3*
Retained D. I.	*369.8*
Percent Retained D. I.	*82%*
Total Onsite Trees	*27*
Retained Onsite Trees	*24*

The subject trees are predominately conifers, which includes native Douglas-fir, Western hemlock, Incense cedar, plus ornamental Leyland cypress. The cypress trees are planted in a hedgerow at the east and north lot perimeter, though were never

pruned or maintained as a hedge. Deciduous trees include all native Bigleaf maple, red alder and Pacific dogwood.

TREE EVALUATION – Tree Health, Condition and Viability
I visually inspected each tree from the ground and rated both tree health and structure/form. A tree's structure is distinct from its health. This inspection identifies what is visible with both. Structure is the way the tree is put together or constructed, and identifying obvious defects can be helpful in determining if a tree is predisposed to failure. Tree health assesses disease, insect infestation and old age.

No invasive procedures were performed on any trees. The results of this inspection are based on what was visible at the time of the inspection. The attached inventory contains the following for each significant tree.

Tree number as shown on tag in the field.

Diameter Stem diameter in inches measured 4.0 feet from the ground.

Diameter Inches (DI) is equal to DBH. The DI for multiple-stemmed trees is calculated as the sum of the diameters of the multiple stems. Diameters of Alder trees are discounted 50%.

Retained DI – lists and tallies DI for all trees proposed for retention.

Tree Species Common name.

Dripline (DL) & Critical Root Zone (CRZ) The circular area around the base of a tree calculated as the distance to the furthest extent to the tree's dripline.

Tree Protection Zone (TPZ) - The circular area around a tree calculated as one foot of radius for every inch of DBH, or at least 6 feet, whichever is greater that is required to be protected with a fenced enclosure.

Structure and Health rating '1' indicates good to excellent condition; no visible health-related problems or structural defects, '2' indicates fair condition; minor visible problems or defects that may require attention if the tree is retained, and '3' indicates poor condition; significant visible problems or defects and tree removal is recommended.

Comments on Condition Obvious structural defects or diseases visible at time of inspection, which includes:

Asymmetric canopy– the tree has an asymmetric canopy from space and light competition from adjacent trees.

Branch dieback - mature branches in canopy are dying/dead.

Bow in trunk – a trunk lean characterized by the top of the tree leaning over. (Common with edge trees)

Dead – tree is dead.

Deadwood – large and/or multiple dead branches throughout canopy.

Decay – process of wood degradation by microorganisms resulting in weak and defective structure.

Diseased – foliage and trunk/stems are diseased.

Disease center – soil borne fungal infection site.

Double leader – the tree has multiple stem attachments, which may require maintenance or monitoring over time.

Foliar disease - foliage is diseased with manageable fungus.

Oozing resin – can indicate armillaria infection on coniferous trees.

Ivy - Dense ivy prevents a thorough inspection, and other defects may be present.

Lean – angle of the trunk from vertical.

Multiple leaders - the tree has multiple stem attachments, which may lead to tree failure and require maintenance or monitoring over time.

Rootplate heave – rootplate lifted from soil during high winds allowing tree to tilt.

Sweep in trunk – characterized by a leaning lower trunk and a more upright top.

Thinning Canopy – low foliage density may indicate stress, or early infection/declining health.

Stumpsprout- tree previously cut at grade with multiple stems and potentially weak attachments.

Suppressed – tree crowded by larger adjacent trees, with defective structure and/or low vigor. Retain tree only as a grove tree, not stand-alone.

Topped – the tree is previously topped and has poor structure and/or stem decay.

Tree leans – trunk has significant lean from vertical.

Tree suppressed -tree is suppressed by adjacent tree canopies.

Viability a determination by the arborist whether the tree is viable for retention, regardless of municipal code.

Steep Slope – indicates if tree is within a designated steep slope area.

DIAMETER INCHES

The total diameter inch (D. I.) calculation is the sum of the diameter of all trees, regardless of condition or viability. Diameters of Alder trees are be discounted by 50% as per municipal code.

Total following table summarizes total, retained and percent retained D. I. for all onsite trees.

Total D.I.	451.3
Retained D. I.	369.8
Percent Retained D. I.	82%

ROOT AND TREE PROTECTION

The Critical Root Zone (CRZ) is based on branch extension. In this report, it is equal to the measured dripline of the tree. The Tree Protection Zone (TPZ) is based on trunk diameter. While both measurements can be useful to establish limits of soil disturbance, and safely protect trees and roots, both can also sometimes over estimate the area necessary required to adequately protect a tree.

The TPZ will regularly exceed the Critical Root Zone (CRZ), which is the outer edge of the tree's canopy, or drip line. Reducing the TPZ closer to the CRZ is possible and must be accompanied by mitigating measures and approved in writing by the City of Bellevue. (Code dictates that the TPZ may not be smaller than the CRZ. However; in some cases, depending on tree and site conditions, exceptions may be allowed.)

City code requires that the area within the defined TPZ be protected with a fenced enclosure. Tree protection fencing should consist of six 6-foot high chain link fence, mounted on two-inch diameter metal posts, driven into the ground to a depth of at least 2-feet at no more than a 10-foot spacing. A warning sign shall be prominently displayed on each fence. The sign shall be a minimum of 8.5 x 11-inches and clearly state: "WARNING – Tree Protection Zone - This fence shall not be removed and any injury to this or these trees is subject to penalty according to BCC 14.06.100."

TREE PROTECTION PLACEMENT

I recommend placement of tree protection fencing starting near the NW parcel corner at the 200' elevation line, or top of the defined steep slope, and following the top of the slope roughly diagonally across the site.

At tree 621, the large Bigleaf maple, fencing should be placed at least 16 feet to the SW and 12 feet to the SE from the base of the trunk, then continue along the top of the slope to what becomes elevation line 206 to the dripline or CRZ of tree 205.

From tree 205 fencing shall continue west following an existing grade change of a concrete rubble retaining wall, and then following the dripline or CRZ of tree 203. From here fencing shall continue to the SE corner of the site with the alder tree 412 in the street right-of-way. (See attached tree plan for illustration.)

DURING CONSTRUCTION PHASE, THE FOLLOWING CONDITIONS SHOULD BE AVOIDED:

1. Allowing run off or spillage of damaging materials into the approved TPZ.
2. Storing construction materials or portable toilets, stockpiling of soil, or parking or driving vehicles within the TPZ.
3. Cutting, breaking, skinning, or bruising roots, branches, or trunks without first obtaining authorization from the Project Arborist.
3. Discharging exhaust into foliage.
4. Securing cable, chain, or rope to trees or shrubs.
5. Trenching, digging, tunneling or otherwise excavating within the CRZ or TPZ of the tree(s) without first obtaining authorization from the Project Arborist.

The following activities should be observed and inspected by the Project Arborist during the construction phase to ensure compliance with the approved TPP:

1. Only excavation by hand or compressed air shall be allowed within the TPZ of trees. Machine trenching shall not be allowed.
2. In order to avoid injury to tree roots, when a trenching machine is being used outside of the TPZ of trees, and roots are encountered smaller than 2”, the wall of the trench adjacent to the trees shall be hand trimmed, making clear, clean cuts through the roots. All damaged, torn and cut roots shall be given a clean cut to remove ragged edges, which promote decay. Trenches shall be filled within 24 hours, but where this is not possible, the side of the trench adjacent to the trees shall be kept shaded with four layers of dampened, untreated burlap, wetted as frequently as necessary to keep the burlap wet. Roots 2” or larger, when encountered, shall be reported immediately to the Project Arborist, who will decide whether the Contractor may cut the root as mentioned above or shall excavate by hand or with compressed air under the root. All exposed roots are to be protected with dampened burlap.
3. Route pipes outside of the TPZ of a protected tree to avoid conflict with roots. Where it is not possible to reroute pipes or trenches, bore or tunnel beneath

Tree Protection Requirements Page 236 the TPZ of the tree. The boring shall take place not less than 3' below the surface of the soil in order to avoid encountering "feeder" roots. All boring equipment must be staged outside of the TPZ.

4. The Project Arborist shall supervise all grade changes adjacent to the TPZ of a significant tree. Cuts or Fills of soil that are adjacent to the TPZ will have a retaining wall system designed in consultation with the Project Arborist and approved in writing by City Staff.
5. Any damage due to construction activities shall be reported to the Project Arborist and City Staff within six hours so that remedial action can be taken.
6. The Project Arborist shall be responsible for the preservation of the designated trees. Should the builder fail to follow the tree protection specifications, it shall be the responsibility of the Project Arborist to report the matter to City Staff as an issue of non-compliance.

LIMITATIONS AND USE OF THIS REPORT

Tree Protection Standards are codified under *BMP T101 – Tree protection Requirements*. This arborist report is not a substitute for the BMP document. This report is intended only to provide the significant tree inventory and evaluation described in the BMP. Please review these standards prior to any development activity.

This tree report establishes, via the most practical means available, the existing conditions of the trees on the subject property. Ratings for health and structure, as well as any recommendations are valid only through the development and construction process. This report is based solely on what is readily visible and observable, without any invasive means.

There are several conditions that can affect a tree's condition that may be pre-existing and unable to be ascertained with a visual-only analysis. No attempt was made to determine the presence of hidden or concealed conditions which may contribute to the risk or failure potential of trees on the site. These conditions include root and stem (trunk) rot, internal cracks, structural defects or construction damage to roots, which may be hidden beneath the soil. Additionally, construction and post-construction circumstances can cause a relatively rapid deterioration of a tree's condition.

ATTACHMENTS:

1. Assumptions & Limiting Conditions
2. Certification of Performance
3. Tree Inventory
4. Tree Plan

Attachment No. 1 - Assumptions & Limiting Conditions

1) A field examination of the site was made 7/9/2019. My observations and conclusions are as of that date.

2) Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/arborist can neither guarantee nor be responsible for the accuracy of information provided by others.

3) Unless stated other wise: 1) information contained in this report covers only those trees that were examined and reflects the condition of those trees at the time of inspection; and 2) the inspection is limited to visual examination of the subject trees without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied that problems or deficiencies of the subject tree may not arise in the future.

4) The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made.

5) Construction activities can impact trees in unpredictable ways. All retained trees should be inspected at the completion of construction, and regularly thereafter as part of ongoing maintenance.

6) The consultant does not assume any liability for the subject tree and does not represent the transfer of such for any risks associated with the tree from the landowner to the consultant. **Risk management is solely the responsibility of the landowner**.

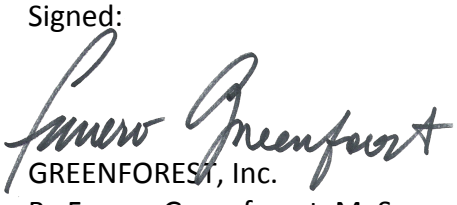
Attachment No. 2 - Certification of Performance

I, Favero Greenforest, certify that:

- I have personally inspected the trees and the property referred to in this report and have stated my findings accurately.
- I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
- The analysis, opinion, and conclusions stated herein are my own and are based on current scientific procedures and facts.
- My analysis, opinion, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.
- No one provided significant professional assistance to me, except as indicated within the report.
- My compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client of any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

I further certify that I am a member in good standing of International Society of Arboriculture (ISA), and the ISA PNW Chapter, I am an ISA Certified Arborist (#PN-0143A) and am Tree Risk Assessment Qualified, and am a Registered Consulting Arborist® (#379) with American Society of Consulting Arborists. I have worked as an independent consulting arborist since 1989.

Signed:



GREENFOREST, Inc.
By Favero Greenforest, M. S.

Date: August 21, 2019

Attachment No. 3 – Tree Inventory

Remove Tree	Tree No.	Diameter (Inches)	Diameter Inches	Retained D. I.	Species	Dripline CRZ (Ft.)	TPZ (Ft.)	Health	Structure	Comments on Condition	Viable Tree	Steep Slope
	203	30.0”	30.0”	30.0”	Douglas-fir	19’	30’	2	1	Resin oozing on trunk, possible armillaria fungal infection	Yes	NO
	204	5.0,6.1”	11.1”	11.1”	Pacific dogwood	11’	8’	1	1		Yes	NO
	205	4.3,4.8, 6.0”	15.1”	15.1”	Pacific dogwood	12’	9’	3	2	Diseased, multiple leaders, asymmetric canopy	NO	NO
	206	9.6”	4.8”	4.8”	Red alder	14’	10’	1	2	Asymmetric, bow in trunk	Yes	NO
	207	29.1”	29.1”	29.1”	Bigleaf maple	24’	29’	1	1		Yes	NO
	397	10.1”	10.1”	10.1”	Western hemlock	12’	10’	2	3	Dense ivy covering trunk, little foliage on tree	NO	YES
	398	14.1”	14.1”	14.1”	Western hemlock	14’	14’	2	3	Dense ivy covering trunk, little foliage on tree	NO	YES
X	**418**	**28.0”**	**28.0”**	**0**	**Douglas-fir**	18’	28’	1	1		Yes	NO
X	**419**	**31.0”**	**31.0”**	**0**	**Douglas-fir**	17’	31’	1	1		Yes	NO
	558	25.3”	25.3”	25.3”	Douglas-fir	0’	25’	3	3	Dead snag	Yes	NO
X	**559**	**22.5”**	**22.5”**	**0**	**Douglas-fir**	0’	23’	3	1	Dead snag	Yes	NO
	621	47.3”	47.3”	47.3”	Bigleaf maple	35’	47’	2	2	Dieback in upper canopy	Yes	YES
	708	11.8”	11.8”	11.8”	Incense cedar	8’	12’	2	2	Double leader, foliar disease	Yes	YES
	710	8.6”	8.6”	8.6”	Western red-cedar	11’	9’	1	1		Yes	YES
	711	8.9”	8.9”	8.9”	Western red-cedar	12’	9’	1	1		Yes	YES
	714	37.2”	37.2”	37.2”	Douglas-fir	24’	37’	1	1		Yes	YES
	715	27.9”	27.9”	27.9”	Douglas-fir	21’	28’	1	1		Yes	YES
	759	9.2”	9.2”	9.2”	Leyland cypress	12’	9’	1	2	Asymmetric - hedgerow	Yes	YES

Remove Tree	Tree No.	Diameter (Inches)	Diameter Inches	Retained D. I.	Species	Dripline CRZ (Ft.)	TPZ (Ft.)	Health	Structure	Comments on Condition	Viable Tree	Steep Slope
	761	8.5”	8.5”	8.5”	Leyland cypress	11’	9’	1	2	Asymmetric - hedgerow	Yes	YES
	767	8.4”	8.4”	8.4”	Leyland cypress	10’	8’	1	2	Asymmetric - hedgerow	Yes	YES
	769	8.2”	8.2”	8.2”	Leyland cypress	10’	8’	1	2	Asymmetric - hedgerow	Yes	YES
	819	8.9”	8.9”	8.9”	Leyland cypress	11’	9’	1	2	Asymmetric - hedgerow	Yes	NO
	822	8.7”	8.7”	8.7”	Leyland cypress	10’	9’	1	2	Asymmetric - hedgerow	Yes	NO
	852	8.8”	8.8”	8.8”	Leyland cypress	12’	9’	1	2	Asymmetric - hedgerow	Yes	YES
	A	10.4”	10.4”	10.4”	Leyland cypress	12’	10’	1	2	Asymmetric - hedgerow	Yes	
	B	8.5”	8.5”	8.5”	Leyland cypress	10’	8.5’	1	2	Asymmetric - hedgerow	Yes	
	C	8.9”	8.9”	8.9”	Leyland cypress	10’	8.9’	1	2	Asymmetric - hedgerow	Yes	
Offsite	396	(5) 3-18”	0	0	Bigleaf maple	22’	26’	2	2	Ivy, stumpsprout, dieback in upper canopy		YES
	412	16.0”	0	0	Red alder	15’	16’	1	2	Rootplate heave, lean over street, weep in trunk		NO
	725	16.0”	0	0	Bigleaf maple	15’	16’	1	2	Previously topped		YES
		Total D. I.	451.3	369.8	Retained D. I.							

Total D.I. 451.3
Retained D. I. 369.8
Percent Retained D. I. 82%

Zinnia Zheng & Radek Zemel
RE: Arborist Report, 403 94th Ave SE, Bellevue WA 98004
August 21, 2019

Attachment No. 4 – Tree Plan

FOUND REBAR/CAP
LS# 19582
0.01'E & 0.03'N OF
PROP COR

SSMH
RIM=167.16
IE 6"PVC=160.21(C.C.)

94TH AVENUE S.E.

GRADE BREAK

FOUND REBAR/CAP
LS# 19582
0.09'W & 0.03'N OF
PROP COR

N 88°52'44" W
127.01'

TEL SENTRY

6" PVC
IE 165.84

6" PVC
IE 165.41

6" PVC
IE 166.89

CB (TYPE 1)
RIM=175.23
IE 10"PVC=173.43(E)
IE 8"CPP=173.53(S)

PARCEL#
5627300202

15,462
SQ
FT
0.35
ACRE(S)

30'-0"
FRONT SETBACK

REVISED 15' BUFFER
FROM STEEP SLOPE

TREE
PROTECTION
FENCING

HATCH INDICATES
STEEP SLOPE

15'-0"
REVISED BUFFER

N 01°13'27" E 121.74'

PARCEL#
5627300205

5'-0"
SIDE SETBACK

DECK

30'-0"
FRONT SETBACK

N 01°13'27" E 121.74'

94TH AVENUE S.E. (GRENADA AVE)

50'-0"
BUFFER

REAR SETBACK
25'-0"

BRICK

ACCESS
TO
PROPERTY

SET PK NAIL
W/ WASHER

N 88°52'44" W 127.01'

PARCEL#
5627300TRCT

CB (TYPE 1)
RIM (SOLID)=209.35
IE 8" CONC. NE 206.75
IE 8" CMP S 208.15'
IE 12" CONC NW 206.55'

SET
REBAR/CAP

CB (TYPE 1)
RIM=216.35
IE 8"CMP=214.80(N)

TREE PLAN
SCALE: 1" = 10'-0"